## SEQUENCE LISTING

<110> TALL, ALAN R WELCH, CARRIE L LIANG, CHIEN-PING	
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384

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Gln Glu Glu Leu Leu Gln Lys Asn Gln Asn Leu Gln Glu Ala Leu Gln 50 55 60	
Arg Ala Ala Asn Phe Ser Gly Pro Cys Pro Gln Asp Trp Leu Trp His 65 70 75 80	

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Ala Asp Asp Leu Thr Phe Ile Leu Gln Ala Ile Ser His Thr Thr Ser 115 120 125	
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Trp Leu Trp Glu Asn 100	Gly Thr Pro Let	_	Phe Lys Thr 110
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Glu Gly Gln Met Leu Ala Gln Gln Lys Ala Glu Asn Thr Ser Gln Glu 85 90 95

Ser Lys Lys Glu Leu Lys Gly Lys Ile Asp Thr Leu Thr Gln Lys Leu 100 105 110

Asn Glu Lys Ser Lys Glu Gln Glu Leu Leu Gln Lys Asn Gln Asn 115 120 125

Leu Gln Glu Ala Leu Gln Arg Ala Ala Asn Ser Ser Glu Glu Ser Gln 130 135 140

Arg Glu Leu Lys Gly Lys Ile Asp Thr Ile Thr Arg Lys Leu Asp Glu 145 150 155 160

Lys Ser Lys Glu Gln Glu Glu Leu Gln Met Ile Gln Asn Leu Gln 165 170 175

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Trp His Lys Glu Asn Cys Tyr Leu Phe His Gly Pro Phe Ser Trp Glu

245

255

Lys Asn Arg Gln Thr Cys Gln Ser Leu Gly Gly Gln Leu Leu Gln Ile 260 265 Asn Gly Ala Asp Asp Leu Thr Phe Ile Leu Gln Ala Ile Ser His Thr 280 Thr Ser Pro Phe Trp Ile Gly Leu His Arg Lys Lys Pro Gly Gln Pro Trp Leu Trp Glu Asn Gly Thr Pro Leu Asn Phe Gln Phe Phe Lys Thr 310 315 Arg Gly Val Ser Leu Gln Leu Tyr Ser Ser Gly Asn Cys Ala Tyr Leu 330 Gln Asp Gly Ala Val Phe Ala Glu Asn Cys Ile Leu Ile Ala Phe Ser 345 340 Ile Cys Gln Lys Lys Thr Asn His Leu Gln Ile <210> 21 <211> 773 <212> DNA <213> Murinae gen. sp. <220> <221> CDS <222> (1)..(174) <223> <220> <221> misc feature <223> Isoform 2 <400> 21 atg act ttt gat gac aag atg aag cct gcg aat gac gag cct gat cag 48 Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Gln 96 aaq tca tqt qqc aaq aaq cct aaa qqt ctq cat ttq ctt tct tcc cca Lys Ser Cys Gly Lys Lys Pro Lys Gly Leu His Leu Leu Ser Ser Pro 144 tgg tgg ttc cct gct gct atg act ctg gtc atc ctc tgc ctg gtg ttg Trp Trp Phe Pro Ala Ala Met Thr Leu Val Ile Leu Cys Leu Val Leu 35 40 tea gtg acc ett att gta eag tgg aca eaa tgategtate etggaaggge Ser Val Thr Leu Ile Val Gln Trp Thr Gln 55 50

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	ta aaa eu Lys							_	_	_			_	240
	gg cag ly Gln													288
	ag aag ys Lys													336
	ag aaa lu Lys 115				_				_	_		_		384
	aa gaa ln Glu 30	_	_		_	_	-						_	432
	aa ctc lu Leu													480
	cc aaa er Lys		_											495
<210><211><211><212><213>	24 165 PRT Murir	nae g	en.	sp.										
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<400>	24													

Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Gln 1 5 10 15

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Lys Ser Cys Gly Lys Lys Pro Lys Gly Leu His Leu Leu Ser Ser Pro
                                 25
Trp Trp Phe Pro Ala Ala Met Thr Leu Val Ile Leu Cys Leu Val Leu
Ser Val Thr Leu Ile Val Gln Trp Thr Gln Leu Arg Gln Val Ser Asp
                       55
Leu Leu Lys Gln Tyr Gln Ala Asn Leu Thr Gln Gln Asp Arg Ile Leu
Glu Gly Gln Met Leu Ala Gln Gln Lys Ala Glu Asn Thr Ser Pro Gln
Ser Lys Lys Glu Leu Lys Gly Lys Ile Asp Thr Leu Thr Gln Lys Leu
Asn Glu Lys Ser Lys Glu Gln Glu Glu Leu Leu Gln Lys Asn Gln Asn
Leu Gln Glu Ala Leu Gln Arg Ala Ala Asn Ser Ser Glu Glu Ser Gln
                        135
    130
Arg Glu Leu Lys Gly Lys Ile Asp Thr Leu Thr Leu Lys Leu Asn Glu
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Lys Ser Lys Glu Gln
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Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Gln
aag toa tgt ggc aag aag cot aaa ggt otg cat ttg ott tot too coa
                                                                      96
Lys Ser Cys Gly Lys Lys Pro Lys Gly Leu His Leu Leu Ser Ser Pro
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20		25	30
		ctg gtc atc ctc tg Leu Val Ile Leu Cy 45	
		aca caa tta cgc ca Thr Gln Leu Arg Gl 60	
		ctt act cag cag ga Leu Thr Gln Gln As 75	
Glu Gly Gln Met .		aag gca gaa aac ac Lys Ala Glu Asn Th 90	
tca aag aag gaa Ser Lys Lys Glu 100	Leu Lys Gly Lys	ata gac acc ctc acc Ile Asp Thr Leu Th 105	c cag aag ctg 336 r Gln Lys Leu 110
aac gag aaa tcc Asn Glu Lys Ser 1 115	aaa gag cag gag Lys Glu Gln Glu 120	gag ctt cta cag aa Glu Leu Leu Gln Ly: 12	s Asn Gln Asn
ctc caa gaa gcc Leu Gln Glu Ala : 130	ctg caa aga gct Leu Gln Arg Ala . 135	gca aac ttt tca gg Ala Asn Phe Ser Gl 140	t cct tgt cca 432 y Pro Cys Pro
		aac tgt tac ctc tto Asn Cys Tyr Leu Pho 155	
Phe Ser Trp Glu l		acc tgc caa tct ttg Ihr Cys Gln Ser Lew 170	
	Asn Gly Ala Asp A	gat ctg aca ttc ato Asp Leu Thr Phe Ile 185	
		tgg att gga ttg cat Frp Ile Gly Leu His 205	s Arg Lys
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<220> <221> misc_featu <223> Isoform 4	are		
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Lys Ser Cys Gly Lys Lys Pro Lys Gly Leu His Leu Leu Ser Ser Pro

25

20

Trp	Trp	Phe 35	Pro	Ala	Ala	Met	Thr 40	Leu	Val	Ile	Leu	Cys 45	Leu	Val	Leu	
Ser	Val 50	Thr	Leu	Ile	Val	Gln 55	Trp	Thr	Gln	Leu	Arg 60	Gln	Val	Ser	Asp	
Leu 65	Leu	-	Gln	Tyr	Gln 70	Ala	Asn	Leu	Thr	Gln 75	Gln	Asp	Arg	Ile	Leu 80	
Glu	Gly	Gln	Met	Leu 85	Ala	Gln	Gln	Lys	Ala 90	Glu	Asn	Thr	Ser	Gln 95	Glu	
Ser	Lys	Lys	Glu 100	Leu	Lys	Gly	Lys	Ile 105	Asp	Thr	Leu	Thr	Gln 110	Lys	Leu	
Asn	Glu	Lys 115	Ser	Lys	Glu	Gln	Glu 120	Glu	Leu	Leu	Gln	Lys 125	Asn	Gln	Asn	
Leu	Gln 130	Glu	Ala	Leu	Gln	Arg 135	Ala	Ala	Asn	Phe	Ser 140	Gly	Pro	Cys	Pro	
Gln 145	Asp	Trp	Leu	Trp	His 150	Lys	Glu	Asn	Cys	Tyr 155	Leu	Phe	His	Gly	Pro 160	
Phe	Ser	Trp	Glu	Lys 165	Asn	Arg	Gln	Thr	Cys 170	Gln	Ser	Leu	Gly	Gly 175	Gln	
Leu	Leu	Gln	Ile 180	Asn	Gly	Ala	Asp	Asp 185	Leu	Thr	Phe	Ile	Leu 190	Gln	Ala	
Ile	Ser	His 195	Thr	Thr	Ser	Pro	Phe 200	Trp	Ile	Gly	Leu	His 205	Arg	Lys		
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<220 <221 <223	> m	isc_ sofo	feat rm 5	ure												
<400 atga			tgac	aaga	t ga	agcc	tgcg	aat	gacg	agc	ctga	tgag	aa g	tcat	gtggc	6(
aaga	agcc	ta a	aggt	ctgc	a tt	tgct	ttct	tcc	ccat	ggt	ggtt	ccct	gc t	gcta	tgact	120
ctgg	tcat	cc t	ctgc	ctgg <sup>.</sup>	t gt	tgtc	agtg	acc	ctta	ttg	taca	gtgg	ac a	.caat	gatcg	180

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240
tatoctggaa gggcagatgt tagcccagca gaaggcagaa aacacttcac aggaatcaaa
qaaqgaactg aaaggaaaga tagacaccct cacccagaag ctgaacgact ccaaagagca
                                                                     300
                                                                     360
qqaqqaqcta cacccccc gaacctccaa gaagccctgc aaagagctgc aaactcttca
ggtccttgtc cacaagactg gctctggcat aaagaaaact gttacctctt ccatqggccc
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                                                                     540
tggattggat tgcatcggaa gaagcctggc aaccatgggt atgggagaat ggacttcttt
                                                                     600
qaattttaat ttttaagaca gggcgttttt acagtttttc ataaggactt gtgatactta
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gagggctggg ttcgttgaaa tgattctatt ggttagcatg tagaaaaaaa tt
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                                                                      120
ctggtcatcc tctgcctggt gttgtcagtg accettattg tacagtggac acaataggag
                                                                      180
                                                                      240
tcccagagag aactcaaggg aaagatagac accetcacet tgaagetgaa egagaaatee
aaagagcagg aggagcttct acagaagaat cagaacctcc aagaagccct gcaaaqaqct
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gcaaactttt caggtccttg tccacaagac tggctctggc ataaagaaaa ctgttacctc
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                                                                     540
accteceegt tetggattgg attgcategg aagaageetg gecaaceatg getatgggag
                                                                      600
aatqqaactc ctttgaattt tcaattcttt aagaccaggg gcgtttcttt acagctatat
tcatcaggca actgtgcata cettcaagac ggactgtgtt cgctgaaaac tgcattctaa
                                                                     660
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ttgcattcag catatgtcaa aagaagacaa atcatttgca aatttagtga atctaaagaa
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<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Murinae gen. sp.

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Asn Leu Gln Glu Ala Leu Gln Arg Ala Ala Asn Ser Ser Glu
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Glu Ser Lys Glu Leu Lys Gly Lys Ile Asp Thr Leu Thr Gln Lys
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Asn Leu Gln Glu Ala Leu Gln Arg Ala Ala Asn Phe Ser Gly
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<210> 38 <211> 46
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Leu Asn Glu Lys Ser Lys Glu Gln Met Glu Leu His His Gln Asn Leu
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Xaa Glu Lys Ser Lys Glu Gln Xaa Glu Leu Xaa Xaa Xaa Xaa Asn
            20
Leu Gln Glu Xaa Leu Xaa Arg Xaa Ala Asn Xaa Ser
```

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1,71
1.37
2500
f;
1
```

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<212> PRT
 <213> Unknown
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 <221> MISC_FEATURE
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 <220>
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<223> X = N, R, OR K
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\langle 222 \rangle (8)..(8)
\langle 223 \rangle X = M OR K
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<221> MISC_FEATURE
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         (13)..(13)
\langle 223 \rangle X = A OR T
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          (14)...(14)
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<222> (17)..(17)
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(222) (24) (24) (24) (223) X = M OR E
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\langle 223 \rangle X = H OR L
<220>
<221> MISC_FEATURE
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(222) (29) (29) (29) (29) (29) (29) (29) (29) (29)
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(222) (30) (30) (223) (30) (30)
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\langle 223 \rangle X = L OR Q
<220>
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 (36) ... (36) (223) X = T OR A
 <220>
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 \langle 223 \rangle X = K OR Q
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 <223> X = V OR A
 <220>
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 <222> (43)...(43)
<223> X = C, F OR S
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<400> 40

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Xaa Glu Lys Ser Lys Glu Gln Xaa Glu Leu Xaa Xaa Xaa Xaa Xaa Asn 20 25 30

Leu Gln Glu Xaa Leu Xaa Arg Xaa Ala Asn Xaa Ser 35 40